

Application No:10/646,784
Amendment Dated: April 26, 2007
Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 2 of 17

AMENDMENTS TO THE SPECIFICATION

RECEIVED
CENTRAL FAX CENTER

Please replace paragraph [0050] with the following paragraph:

APR 26 2007

[0050] The complete sequence nucleotide sequence for MIS is disclosed in U.S. Patent No.5,047,336, which is hereby incorporated by reference. The DNA sequences of this invention are selected from the group consisting of: (a) the DNA sequences

AAGGTCG CGGCAGAGGA GATAGGGTC TGTCTGCAC AAACACCCCA CCTTCCACTC
GGCTCACTTA AGGCAGGCAG CCCAGCCCT GGCAAGCACCC ACGATGCGGG ACCTGCCTCT
CACCAAGCTG GCCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGGACTG AGGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACCAGTGG CCTCATCTTC CGAGAAAGACT TGGACTGGCC
TCCAGGCCATC CCACAAAGAGC CTCAGTGCCT GGTGGCACTG GGCGGGGACA GCAATGGCAG
CAGCTCCCCC CTGGGGGTGG TGSGGGCTCT AAGGCCTAT GAGCAGGCCT TCCTGGGGC
CGTGCAAGGG GCCCCGCTGGG GCCCCCGAGA CCTGGCCACC TTCGGGTCT GCAACACCGG
TGACAGGCAG GCTGCCCTGC CCTCTCTAACG GCGGCTGGGG GCCTGGCTGC GGGACCCCTGG
GGGGCAGCGC CTGGTGTCC TACACCTGGA GGAAGGTATG TGGGGCCAG CCCCAAGCTT
GGCACCGCCG TCTTCCCTCA GGTGGGCCGG GTCCCTCTAG GGAAGATCAG GGGCTGGCAG
AGCCCCCACC CTGGGCAGGG AGGCTGTGGT CTIIGTTCTTA GGACTGGGTI GGGGGTCCGT
GGCCTGGAAAG GTGGGCACCA CACTCTGTCC TGTCCCCGAA GCCCAGCTCT TAGACTTGCC
CCTGCCCTGG TGCCAGGGAG AGASCTGTG CCTTCTCCCC ACCCCTGAAG ACGACGCAGG
GCTGGGGCC AGTGGAAACCC TTCTTCCCAC AGCCCCAGCC TGTCTCAGG GCCGCTGGCC
TAAGATACTC CCTGGGGGGA AGCAGCTTCA TCGGGCACCC CAACCCAGAG ACCCCAGGGC
GGCAGCCCCA CCCACAGCCT CAGACGCAGC CCTGCGCTGC CCTGCGCTC ACCGCTCCCT
GGCTGCAGGA ASGCAGCTAA GAGGGGCACC CTTGCCCCC GCTTGAGGTC CCTGACACAG
TGGCCAGAGC GGCAGGGACA GATCCCCAAAG ATTCCCGGGG CGTGTGGCT TCAATGGCTC
AGGCGTCCCC TGCTGTCCCC GCTCGAGTGA CCTGGGAGCC AACACCCCTCG CTGAGGTTCC
AGGAGCCCC GCCTGGAGGA GCTGGCCCC CAGAGCTGGC GCTGCTGGT CTGTACCTCG
GGCCTGGCCC TGAGGTCACT GTGACGAGGG CTGGGCTGCC GGGTGGCCAG GTACCAAGGA
GTTGCATGGG GCACTGCCCG GGGCGTGGCG GGGGGCATGA ATTGTGTCAGA GGGTCTGGAG
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT GGGAGGAAGG GGACCGGTAG AGCGGGCTG
GGTAAGCCTC CATCCAGCCG GGCTGAGCCC TGGTCTCCGC AGAGCCTCTG CCCCTCCCCA
GACACCCGCT ACCTGGTGTGTT AGCGGTGGAC CGCCCTGCGG GGGCCTGGCG CGGCTCCGGG
CTGGCCTGAC CCGCTGCAGCC CCGCGGAGAG GGTAGGTCCG CGTGGAGAGG GACGGGGAGC
CGGGTGGACT GCGCCCGGGC CCCCCAGCCCC TGAGCCAGCC GCGTGGCCAC CCACCGCAGA
CTCCCCGGCTG AGTACCGCCC GGCTGCAGGC ACTGCTGTTC GGGGACGACC ACCGCTGCTT
CACACCCGATG ACCCCCCCCC TGCTCTGCT GCGCGGGTCC GAGCCCCGGC CGCTGCCTGC
GCACGGCCAG CTGGACACCG TGCCCTCCC GCGCCCGAGG TCGCGCGAGG CACCGGGACA
CGGGGGCAGGA CGGGGGGGGG GCGCGTGGC CTCGTGGCCG CTCTCAACTC CTCCAATTGC
GGGTTCCAGG CCATCCCGGG AACTCGAGGA GTCGCCACCC AGCGCAGACC CCTTCCTGGA
GACGCTCACG CGCCCTGGTGC GGGCGCTGCCG GGTCCCCCCCC GCGCGGGCG CGCGCGCG
CCTGGCCCTG GATCCCCACG CGCTGGCCGG CTTCCCGCAG GGCCTAGTCA ACCTGTCGGA
CCCCCGGGCG CTGGAGCGCC TACTCGACGG CGAGGAGCCG CTGCTGCTGC TGCTGAGGCC
CACTGGGGCC ACCACCGGGG ATCCTGCGCC CCTGACCGAC CCCACGTCCG CGCCCTGGGC

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 3 of 17

CACGGCCCTG GCGGCCGCG TGGCTGCTGA ACTGCAAGCG GCGGCTGCCG AGCTGCCAAG
CCTCCCCGGT CTGGCTCCCG CCACAGCCCC GCTGCTGGCG CGCCTGCTCG CGCTCTGCC
AGGAGGCC GGCGGCCCTCG GCGATCCCCT CGCAGCGCTG C-GCTCCCTGA AGGCCTGCA
GGGCTGCC GTGGASTGGC GCGGGCGGGA TCCGCGCGG CCGGGTCGGG CACASCGCAG
CGC3GGGGCC ACCGCCGCG ACGGGCCGTG CGCCTGCC GAGCTCAGCG TAGACCTCCG
CGCCGAGCGC TCCGACTCTA TCCCCGAGAC CTACCAAGGCC AACAATTGCC AGGGCGTG
CGGCTGCC CAGTCCGACC GCAACCCGCG CTACGGCAAC CACGTGGTGC TGCTGCTGAA
GATGCAGGCC CCTGGGGCCG CCCTGGCGCG CCCACCCCTGC TGCGTGCCCA CGGCTACGC
GGGCAAGCTG CTCATCAGCC TGCGGAGGA ACGCATCAGC GCGCACCAACG TGCCCCAACAT
GGTGGCCACC GAGTGTGGCT GCGGTGACC CCTGCGCCGC GCGGACTCCT GCCCCGAGGG
TCCGGACCGC CCCCAGCTCG CGCCCCTTCC CATATTTATT CGGACCCCCA GCATCGCCCC
AATAAAGACC ACCAAGC

(the sequence of the human gene) (SEQ ID NO:1);

AGCACCC ACGATCCCCG ACCTGCCCTCT
CACCAAGCTG GCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGGACTG AGGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACCAAGTGG CCTCATCTTC CGAGAAAGACT TGGACTGGC
TCCAGGCATC CCACAAGAGC CTCTGTGCC GGTGGCACTG GGCGGGGACA GCAATGGCAG
CAGCTCCCC CTGGGGGG TGGGGGCTCT AAGGCCCTAT GAGCAGGCC TCCCTGGGGC
CGTGCAGAGG GGGGCCTGGG GGCCCCGAGA CCTGGCCACC TTCGGGGTCT GCAACACCGG
TGACAGGCAG GCTGCCCTTGC CCTCTCTACG GGGGCTGGGG GCTGGCTGC GGGACCCCTGG
GGGGCAGCGC CTGGTGGTCC TACACCTGGA GGAAAGGTATG TGGGGCCAG CCCCAAGCTT
GGCACCCCG TCTTCTTCA GGTGGGGCGG GTCCCTCTAG GGAAAGATCG GGGCTGGCAG
AGCCCCCAC CTGGGCAGGG AGGCTGTGGT CTTGTCTCTA GGACTGGTT GGGGGTCCTG
GGCCTGGARG GTGGGCACCA CACTCTGTCC TGTCCCCGAA GCCCAGCTCT TAGACTTGCC
CCTGCCCTCGG TGCCAGGGAG AGAGCTGCTG CTTCTCTCCC ACCCCTGAAG ACGACGCAGG
GCTGGGGCC AGTGGAACCC TTCTTCCCAC AGCCCCAGCC TGTTCTCAGG GGCGCTGGC
TAAGATACTC CCTGCGGGGA AGGGCTTCA TGggGCACCC CAACCCAGAG ACCCCAAGGGC
GGCAGCCCCA CCCACAGCCT CAGACGCAGC CCCTGCCCTGC CCCTGCCGT ACCGCTCCC
GCTGCAGGA AGGGCAGCTAA AGGGGGCACC CTTGTCCCCC GCTTGAGGTC CCCTGCCACAG
TGGCCAGAGC GGCAGGGACA GATCCCCAAG ATTCCCAGGG GGTGTGGCT TCAATGGCTC
AGGGCTCCCC TGCTGTCCCC GCTGCAGTGA CCTGGGAGCC AACACCCCTCG CTGAGGTTCC
AGGAGCCCC GCCTGGAGGA ECTGGCCCC CAGAGCTGGC GCTGCTGGTG CTGTACCCCTG
GGCCTGGCCC TGAGGTCACT GTGACGAGGG CTGGGCTGCC GGGTGCCCCAG GTACCAGGG
GTTGCATGGG GCAGTGGCCCG GGCGTGGCG GGGGCATGA ATTGTTGCA GGGTCTGCAG
TACTGAGAAC AACGTAGAAC CAGTGGCGAT GGGAGGAAGG GGACCGGTAG AGCGGGGCTG
GGTAAGCTC CATCCAGCCG GGCTGAGCCC TGGTCTCCGC AGAGCCTCTG CCCCCTCCGA
GACACCCGCT ACCTGGTGT AGCGGTGGAC CGCCCTGCCG GGGCCTGGCG CGGCTCCGGG
CTGGCCCTGA CCCTGCCAGCC CCGGGGAGAG GGTAGGTCCG CGTGGAGAGG GACGGGGAGC
GGGGTCGACT GGCCCCGGGC CCCCAGCCCC TGAGGCCAGCC GGGTGCCAAC CCACCCGAGA
CTCCCCGGTG AGTACCGCCC GGCTGCAGGC ACTGCTGTTC GGCGACCCACC ACCGCTGCC
CACACGGATG ACCCCGCCCC TGCTCTCTGCT GGCGGGTCC GAGCCCGCCG CGCTGCCCTGC
GCACGGCCAG CTGGACACCG TGCCCTTCCC GGCGCCAGG TGCGGCCAGG CACCGGGACA
GGGGCAGGA GGGGCCGGGG GGCGCGTGGC CTCGTGGCCG CTCTCAACTC CTCCAATTGC
GGGTTCCAGG CCATCCGCGG AACTCGAGGA GTCGCCACCC AGCGCAGACC CCTTCTGG
GACGCTCACG CGCCCTGGTGC GGCGCTGCCG GGTCCCCCCC GGCGGGCC CGCGCCCGCG

10532322.1

Application No:10/646,784

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 4 of 17

CCTGGCCCTG GATCCGGACG CGCTGGCCGG CTTCCCGAG GGCTAGTCA ACCTGTGCGGA
CCCCGGCG CGTGAGCGCC TACTCGACCG CGAGGAGCCG CTGCTGCTGC T3CTGAGGCC
CACTGGGCC ACCACCGGGG ATCCTGCGCC CCTGCACGAC CCCACGTCGG CGCCGTGGGC
CACGGCCCTG GCGCGCCCGG TGGCTGCTGA ACTGCAAGCG GCGGCTGCCG AGCTGCCAAG
CCTCCCGGGT CTGCCTCCGG CCACAGCCCC GCTGCTGGCG CGCTGCTCG CGCTCTGCC
AGGAGGCCCCC CGCGGCCCTCG GCGATCCCCCT GCGAGGGCTG CTGCTCCTGA AGGCCTGCA
GGCCCTGCCGC GTGGAGTGGC GCAGGGGGGG TCCGGCGGGG CGGGCTCGGG CACAGCGCAG
CGCGGGGGCC ACCGCCGCG ACAGGCCGCG CGCGCTGCCG GAGCTCAGCG TAGACCTCCG
CGCCGAGCGC TCCTGACTCA TCCCGAGAC CTACCGAGCC AACAAATTGCC AGGGCGTGTG
CGCGCTGGCCT CAGTCCGACCC GCAACCCCGG CTACCGAAC CACGTGGTGC TGCTGCTGAA
GATGCAGGCC CGTGGGGCCG CCCTGGCGCG CCCACCCCTGC TGCGTGCCA CGGCCTACCG
GGCGCAAGCTG CTCATCAGCC TGTCGGAGGA ACGCATCAGC GGCGACCACG TGCCCAACAT
GGTGGCCACC GAGTGTGGCT GCCGGTGACC CCTGCGCCGC CGGGACTCCT GCGGGAGGG
TCCGGACGCC CGCCAGCTCG CGCCCGCTTC CATATTTATT CGGACCCCCA GCATCGCCCC
AATAAAGACC AGCAAGC

(the sequence of human cDNA) (SEQ ID NO:2):

CAAGGTCATG TCCCAGGAGG AGATAGGGAC CGCCCTGCAC CACAAACAGC TCTGCTCCCT CTTATAAAGT AGGGCAGCCC
AGCCCCCTGGA
AGCTCCCAAGG ATGCCCGGTC CATCTCTCTC TCTGGCCCTG GCGCTGTCGG CCATGGGGGC
TCTGCTGAGG CCAGGGACCC CCAGGGAAAGA AGTCTTCAGC ACCTCAGCCT TGCCCAAGGA
GCAGGCCACA GGCAAGCGGGG CACTCATTT TCAGCAAGCC TGGAACCTGGC CACTCTCCAG
TCTCTGGCTG CCAGGCAGCC CTCTGGACCC CCTGTCGGTGC ATGGAGGTGG
CAACGGGAGC AGGGCCCCCCC TGCGGGTGGT GGGGGCTCTG AGCAGCTACG ASCAGGCCCTT
CCTGGAGGCT GTGCGGGCGCA CCCACTGGGG CCTGAGTGCAC TTGACCACT TCGCAGTGTG
CCCCGCTGGC AACGGGGAGC CTGTGCTGCC CCACCTGCAG CGGCTGCAGG CATGGCTGGG
GGAGGCCCCGGG GGGCGGTGGC TGGTGGTCCT GCACCTGGAG GAAGTGACGT GGGAGCCAAC
ACCTTGGCTG AGGTTCCAGG ACCCTCCGCC TGGAGGAGCC AGCCCCCCCAG AGCTGGCGCT
GCTCGTGGTG TACCCAGGGC CTGGCCTGGA GGTCACTGTC ACCGGGGCTG GGCTACCTGG
CACCCAGAGC CTCTGCCTGA CGCGGGACTC GGACTTCTG GCCTGGTCG TGGACCACCC
GGAGGGGGCC TGGCGCCCGC CTGGGTTASC CCTTACCCCTG CGGGCCCGTG GAAATGGTGC
GCTCCTGAGC ACTGCCCAGC TGCAAGGGCT GCTGTTGGT GCGGACTCCCC GCTGCTTCAC
ACGAAAGAGC CCAGCCCCGT TACTCTTGCT GCCGGCCCCG TCTTCGGCAC CGATGCCCGC
GCACGGTGG CTGGACTTGG TGGCTGGCC CGAGCCCAGG GCTTCCCCGG AGCCAGAGGA
GGCACCGCCCC AGCGCTGATC CCTTCCTGGA GACTCTCACG CGCGTGGTGC GCGCGCTTGC
GGGACCCCCCG GCGCGAGCCT CGCCACCGCG GCTGGCCTTG GACCCGGGCG CACTGGCTGG
TTTCCCGCAG GCGCAGGTCA ACCTGTGCGA CCCCCGGGCC CTGGAGGGCC TGCTGGACGG
CGAGGAGCCG CTGCTGCTGC TGCTGCCGCC GACGGCAGCC ACCACCGGGG TCCCCGCAAC
GCGCAGGGT CCCAAGTCCC CTCTGTGGC CGCGGGACTA GCGCGCCG3G TGGCTGCCGA
GCTTCAGGCG GTGGCCGCC AGCTCGCTGC CCTCCCCGGG CTGCTCCAG CTGCCCCACC
GCTGCTGGCG CGCGCTGCTGG CACTGTGCCC GGGAAACCCA GACAGCCCCG GCGGCCCCGCT
CGCGCGCGCTG CTGCTGCTCA ARGCCTGCA GGGCTGCGC GCTGAGTGGC GCGG3CGGGG
GCGGAGCGGC TCTGCACGGG CGCAGCGCAG CGCCGGGGCC GCGGCTGCAG ACGGGGCGTC
CGCTCTGCGT GAGCTGAGCG TAGACCTGCG GGCGAGCGC TCGGTGCTCA TCCCCGAGAC
ATACCAAGGCC AACAACTGCC AGGGGGCTG CGGCTGCCCT CAGTCGGACC GCAACCCCGCC
CTACGGCAAC CACGTGGTGC TGCTGCTAAA GATGCAGGCC CGCGGCGCCA CCTGGCGCG

10532322.:

Application No:10/646,784

Page 5 of 17

Amendment Dated: April 26, 2007

Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

CCCGCCCTGC TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTTCATCAGCC TGTCCGAGGA
CGCCATCAST CGCGACCACG TCCCCAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC
TCGGCGCGTG CTCCCTCGTGC TGCCCCGGCC CGTATTATT CGGACCCCCGT CATTGGCCCA
TTAAACACGG GAAGGC

(the sequence of the bovine gene) (SEQ ID NO:3);

AGCTCCCAGG ATGCCGGTCA CATCTCTCTC TCTGGCCCTG GTGCTGTCGG CCATGGGGGC
TCTGCTGAGG CCAGGGACCC CCAGGGAAAGA AGTCTTCAGC ACCTCAGCCT TGCCCAAGGGA
GCAGGCCACA GGCAAGGGGG CACTCATCTT TCAGCAAGCC TGGGACTGSC CACTCTCCAG
TCTCTGGCTG CCAGGCAGCC CTCTGGACCC CCTGTGCCTG GTGACCCCTGC ATGGGAGTGG
CAACGGGAGC AGGSCCCCCC TGCGGGTGGT GGGGGTCCCTG AGCAGCTACG AGCAGGGCCT
CCTGGAGGCT GTGCGGGCGCA CCCACTGGGG CCTGAGTGAC TTGACCACT TCGCAGTGTG
CCCCGCTGGC AACGGGAGC CTGTGCTGCC CCACCTGCAG CGGCTGCAGG CATGECTGGG
GGAGCCCGGG GGGCGGTGSC TGGTGGCTC GCACCTGGAG GAAGTGACGT GGGAGCCAAC
ACCCCTGGCTG AGGTTCAGG AGCCTCCGCC TGGAGGGAGCC AGCCCCCAG AGCTGGCGCT
GCTGGTGGTG TACCCAGGGSC CTGGCCTGGA GGTCACTGTC ACCGGGGCTG GGCTACCTGG
CACCCAGAGC CTCTGCCCTGA CCAGGGACTC GGACTTCCTG GCCTTGGTCG TGGACCCACCC
GGAGGGGGCC TGCGGCCGSC CTGGGTTAGC CCTTACCTG CGGCGCCGTC GAATGGTGC
GCTCCTGGAGC ACTGCCCAAGC TGCAGGGCGCT GCTGTTGGT GCGGACTCTCC GCTGCTTCAC
ACGAAAGACC CCAGCCCTGT TACTCTTGCT GCCGGCCCGG TCTTCGGCAC CGATGCCCGC
GCACGGTGG CTGGACTTGG TGCCCTTCCC GCAGCCCCAG GCTTCCCCGG AGCCAGAGGA
GGCACCCSCC AGGGCTGATC CCTTCCCTGGA GACTCTCAGC CGGCTGGTGC GCGCGCTTGC
GGGACCCCCG GCCCCAGCCT CGCCACCGCG GCTGGCCCTG GACCCGGCCG CACTGGCTGG
TTTCCCGCAG GGCCAGGTCA ACCTGTCGGA CCCCGCGGCC CTGGAGGCC TGCTGGACGG
CGAGGAGGCC CTGCTGCTGC TGCTGCCGCC GACGGCAGCC ACCACCGGGG TCCCCGCAAC
GCGCAGGT CCCRAAGTCCC CCTCTGGGCG CGCGGGACTA GCGCGCCGGG TGGCTGCCGA
GCTTCAGGCG GTGGCCGCG AGCTGCGTGC CCTCCCGGGG CTGCGCTCCAG CTGCCCCACC
GCTGCTGGCG CGCGCTGCTGG CACTGTGCCCG GGGAAACCCA GACAGCCCCG GCGGCCCGCT
GCGCGGCTG CTGCTGCTCA AAGCGCTGCA GGGCTGCGC GCTGAGTGGC GCGGGCGGG
GCGGAGCGGC TCTGCACGGG CGCAGCGCAG CGCCGGGGCC GCGGCTGCAG AGGGGGCGTG
CGCTCTGCGT GAGCTGAGCG TAGACCTGCG GCGCGAGGCC TCGGTGCTCA TCCCCGAGAC
ATACCAAGGCC AACAACTGCC AGGGGGCTG CGGCTGGCCT CAGTCGGACC GCAACCCCGC
CTACGGCAAC CACGTGGTGC TGCTGCTAAA GATGCAGGCC CGCGGGGCCA CCCGGCGCG
CCCGCCCTGC TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTTCATCAGCC TGTCCGAGGA
CGCCATCAST CGCGACCACG TCCCCAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC
TCGGCGCGTG CTCCCTCGTGC TGCCCCGGCC CGTATTATT CGGACCCCCGT CATTGGCCCA
TTAAACACGG GAAGGC

(the sequence of bovine cDNA) (SEQ ID NO:4); and

(b) DNA sequences which hybridize to the aforementioned DNA sequences and which code on expression for a human MIS-like polypeptide or a bovine-like polypeptide and preferably have a substantial degree of homology (more preferably, at least about 70% homology and most preferably at least about 80% homology) and the aforementioned DNA sequences; and

10532322.1

Application No:10/646,784
 Amendment Dated: April 26, 2007
 Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 6 of 17

(c) DNA sequences which code on expression for a polypeptide code for on expression by any of the foregoing DNA sequences. Recombinant DNA molecules containing these DNA sequences, hosts transformed with them and MIS-like polypeptides coded for on expression by them are also part of this invention.

The DNA sequences, recombinant DNA molecules, hosts and processes of this invention enable the production of MIS-like polypeptides for use in the treatment of ovarian cancer and other suitable cancers.

Also within the scope of the present invention are the polypeptide selected from the group consisting of

MRDLPLTSLALVLSALGALLGTEALRAEEPAVGTSGLIFREDLD
WPPGIPQEPLCLVALGGDSNGSSPLRVVGALSAYEQAFLGAVQRARWGPRDLATFGV
CNTGDRQAALPSLRRILGAWL RD3GGQRLVVLHLEEVTV EPTPSLRFQEPPPGGAGPPE
LALLVLYPGPGPEVT VTRAGLPGAQSLCP SRDTRYLVLA VDRPAGAWRGSGLALTLP
RGEDSRLSTARLQALLFGDDHRCFTRMTPALLL PRSE PAPLPAHGQLDTVPFP PPPR P
SAELEESPPSADPFLETLTRLVRALRVPPARASAPRLALDPDALAGFPQGLVNLS DPA
ALERLLDGEEPLL L RPTAATT GDPAPLHDPTSAPWATALARRVAAELQAAAELRS
LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLKALQGLRVIEWGRDPRGPGR A Q
RSAGATAADGPCALRELSVDLRAERSVLI PETYQANN CQGVCGWPQSDRNPRYGNHV V
LLLKMQARGAALARPPCCVPTAYAGKLLISLSEBRISAHV PNIVATECGCR

(the complete amino acid sequence of human MIS protein) (SEQ ID NO: 5);

RAEEPAVGTSGLIFREDLD
WPPGIPQEPLCLVALGGDSNGSSPLRVVGALSAYEQAFLGAVQRARWGPRDLATFGV
CNTGDRQAALPSLRRILGAWL RD3GGQRLVVLHLEEVTV EPTPSLRFQEPPPGGAGPPE
LALLVLYPGPGPEVT VTRAGLPGAQSLCP SRDTRYLVLA VDRPAGAWRGSGLALTLP
RGEDSRLSTARLQALLFGDDHRCFTRMTPALLL PRSE PAPLPAHGQLDTVPFP PPPR P
SAELEESPPSADPFLETLTRLVRALRVPPARASAPRLALDPDALAGFPQGLVNLS DPA
ALERLLDGEEPLL L RPTAATT GDPAPLHDPTSAPWATALARRVAAELQAAAELRS
LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLKALQGLRVIEWGRDPRGPGR A Q

10532322.1

Application No:10/646,784
Amendment Dated: April 26, 2007
Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 7 of 17

RSAGATAADGPCALRELSVDLRAERSVLIPETYQANNCGVCGWPQS DRNPRYGNHVV
LLLKMQARGAALARPPCCVPTAYAGKLLISLSEERISAHVPNMVATECGCR

(the amino acid sequence of mature human MIS protein) (SEQ ID NO: 6);

MPGPSLSSLALVLSAMGALLRPGRBEVFSTSALPREQATGSGA
LIFQQAWDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVR
RTHWGLSDLTTFAVCPAGNGQPVLPHLQRLQAWLGEPPGRWLVVLHLEEVTWEPTPLL
RFQEPPP GGASPP EALLVVYPGPGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPE
GAWRRPGLALT LRRRGNGALLSTAQLQALLFGADSRCFTRKTPALLLLPARSSAPMP
AHGRLDLVPFPQPRASPEPEEAPP SADPFLET LTRLVR ALAGP PARASPP RIALD PGA
LAGFPQGVNLSDPAALERLLDGEEPLLLLLPPTAATTGVPATPOGPKSPLWAAGLAR
RVAELQAVAAELRALPGLPPAAPPLLARLLALCPGNPDSPGGPLRALLLKALQGLR
AEWRGRERSGSARAQRSAGAAA ADGPCALRELSVDLRAERSVLIPE TYQANNCGACG
WPQSDRNPRYGNHV VLLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPN
MVATECGCR

(the complete amino acid sequence of bovine MIS protein) (SEQ ID NO: 7);

REEVFSTSALPREQATGSGA
LIFQQAWDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVR
RTHWGLSDLTTFAVCPAGNGQPVLPHLQRLQAWLGEPPGRWLVVLHLEEVTWEPTPLL
RFQEPPP GGASPP EALLVVYPGPGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPE
GAWRRPGLALT LRRRGNGALLSTAQLQALLFGADSRCFTRKTPALLLLPARSSAPMP
AHGRLDLVPFPQPRASPEPEEAPP SADPFLET LTRLVR ALAGP PARASPP RIALD PGA
LAGFPQGVNLSDPAALERLLDGEEPLLLLLPPTAATTGVPATPOGPKSPLWAAGLAR
RVAELQAVAAELRALPGLPPAAPPLLARLLALCPGNPDSPGGPLRALLLKALQGLR
AEWRGRERSGSARAQRSAGAAA ADGPCALRELSVDLRAERSVLIPE TYQANNCGACG
WPQSDRNPRYGNHV VLLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPN
MVATECGCR

10532322.1

Application No:10/646,784
Amendment Dated: April 26, 2007
Response to Notice of Non-Compliant Amendment mailed on April 3, 2007

Page 8 of 17

(the amino acid sequence of mature bovine MIS protein) (SEQ ID NO: 8); and

MIS-like polypeptides related thereto.

The C-terminal amino acid and nucleotide sequences for bovine MIS are shown in FIG. 17 of U.S. Patent No. 5,661, 126, which is hereby incorporated by reference in its entirety. Fig. 17 shows the amino acid (SEQ ID NO:2, herein referred to as SEQ ID NO:9) and nucleotide (SEQ ID NO:1, herein referred to as SEQ ID NO:10) sequences of bovine MIS C-fragment, having about 109 amino acids. The C-terminal amino acid and nucleotide sequences for human MIS are shown in FIG. 18 of U.S. Patent No. 5,661, 126. Fig 18 shows the amino acid (SEQ ID NO:4, herein referred to as SEQ ID NO:11) and nucleotide (SEQ ID NO:3, herein referred to as SEQ ID NO:12) sequences of human MIS C-terminal fragment, having about 109 amino acids. A comparison of the amino acid sequence for human and bovine MIS, showing the - and C-terminal domains is shown in Cate et al., Handbook of Experimental Pharmacology 95/II: 184, edited by M.B. Spoon and A.B. Roberts, Springer-Verlag Berlin Heidelberg (1990), which are hereby incorporated by reference.

10532322.1